Mechanical Engineering Technology

Description
Mechanical Engineering Technology is a three-year program that provides students with practical mechanical engineering training. This program is the only one of its kind offered in English in Quebec. The program focuses on theory and practice in the design, construction, installation, control and use of machines and mechanical devices of all kinds, and in the manufacturing of goods.

Among the skills students acquire in the program are:
- Understanding the relationship and role of all parts/components in a mechanical assembly
- Interpreting mechanical drawings using industrial grade software

Graduates may enter the job market directly or choose to pursue further studies in engineering at university. Depending on the university chosen, students may be granted credits toward their degree program or additional prerequisite courses may be required.

In your final year, you will choose between the following two options:
- Mechanical Design: Apply basic principles of design – with the help of Computer-Aided Design – to the development of manufacturing equipment and processes
- Automated Manufacturing: Use robotics, PLCs and microprocessor-controlled equipment in manufacturing applications requiring automation

Career Opportunities
Graduates of this program typically work in:
- The design, development and implementation of engineering projects
- Mechanical drafting or Computer-Aided Design and Drafting (CADD)
- Estimating, inspecting and testing
- Research and development
- Technical sales
- The servicing and testing of materials and components
- The installation and maintenance of automation equipment, including robotics, numerical control (NC) and Computer-Aided Manufacturing (CAM)
Course List  First Two Years

YEAR 1 – TERM 1
- Engineering Mathematics I
- Introduction to CIM
- Introduction to Mechanical Engineering Technology
- Metrology
- Engineering Graphics
- Engineering Materials

English
Physical Education

YEAR 1 – TERM 2
- Engineering Physics I
- Machine Tools I
- Mechanical Components I
- Quality Control
- CAD I
- Heat Treatment

English
French

YEAR 2 – TERM 3
- Engineering Mathematics II
- CAD II
- Machine Tools II
- Manufacturing Processes

English
Humansities
Physical Education

YEAR 2 – TERM 4
- Engineering Physics II
- Tooling Manufacturing
- CNC Operation
- Mechanical Components II
- CAD III

French
Humansities

Admission Requirements

What you need to apply:
- A Diploma of Secondary Studies (DES) or academic background judged equivalent to the DES.

Specific ministerial admission requirements:
- Sec IV Mathematics – Technical & Scientific option
  or Science option 564-406/426 or 565-406/426 or Sec V Cultural, Social & Technical option 563-504 or Mathematics 526
- Sec V Physics 553-504 or Physics 534

Application Deadline: March 1 – This Program accepts applications only for the Fall semester.

Course List  * Mechanical Design

YEAR 3 – TERM 5
- Pneumatic Systems
- Machine Design
- Sheet Metal Design
- Design Modification
- CAD IV
- System Design I

Physical Education
Complementary

YEAR 3 – TERM 6
- Emerging Technologies
- 3D Modelling
- System Design II
- Design Project

English
Humansities
Complementary

Course List  * Automated Manufacturing

YEAR 3 – TERM 5
- Design Modifications
- Production Tooling
- Production Planning
- NC Lathe
- Automated Circuits I
- Industrial Automation

Physical Education
Complementary

YEAR 3 – TERM 6
- Graphic Programming
- Automated Circuits II
- Industrial Systems
- Manufacturing Project

English
Humansities
Complementary

In addition to their program requirements, every student must take four English courses, two French courses, three Humanities courses, three Physical Education courses and two Complementary courses to receive a CEGEP Diploma.